

REMARKS

Claims 1-17 are presently pending in the application.

In paragraph 3 of the Office Action, the Examiner has rejected claims 1-4, 6, 7 and 11 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,578,296 of Miyazaki et al. The Examiner contends that Miyazaki teaches a thermoformed article comprising (a) a composition comprising 30-80 wt. % polyolefin resin, 19-69 wt. % talc and 1-10 wt. % titanium dioxide, and (b) a layer of polyolefin resin containing 0-10 wt. % filler. The Examiner further contends that the laminate may further comprise a saponified ethylene/vinyl acetate layer sandwiched between layers (a) and (b), stating that this material is synonymous with ethylene vinyl alcohol and is relied upon by the Examiner to read on the claimed barrier layer. The Examiner notes that the laminate has a thickness of 300-800 microns, and the thickness ratio of the filled layer (a) to the unfilled layer (b) is preferably in the range of 97:3-70:30.

In addition, in paragraphs 4-10 of the Office Action, the Examiner has rejected all of the claims under 35 U.S.C. 103(a) as being unpatentable over various combinations of Miyazaki with previously cited and discussed prior art patents of record. Further, in the Response to Arguments at pages 9-10 of the Office Action, the Examiner takes the position that the Applicants' showing of criticality of the claimed thickness ratio with respect to the laminate's thermoformability and paper-like appearance and texture is not unexpected, since Miyazaki teaches a preferred thickness ratio to assure that the laminate maintains the appearance, touch and feel of paper. The Examiner concludes that one of ordinary skill in the art would have suspected that the laminate's appearance and texture would have been altered by varying the relative thickness of the filled sheet to the unfilled sheet.

Further, with regard to thermoformability, the Examiner argues that Miyazaki and Hattori teach that the amount of filler incorporated into the laminate will affect the laminate's heat resistance. The Examiner therefore concludes that one skilled in the art would have expected a sheet comprising either a larger weight % of filler or a laminate comprising a thicker filled layer would require a higher processing temperature. In sum, the Examiner concludes that the results of Applicants' claimed invention are not unexpected.

These rejections are respectfully but strenuously traversed for the reasons set forth in detail below.

All of the references, other than newly-cited Miyazaki, have been thoroughly discussed in prior Office Actions and Responses thereto in the present application and the parent applications. Accordingly, the following comments are directed primarily to the newly-cited Miyazaki reference, and Applicants incorporate by reference the previous comments relating to the remaining references, none of which (by the Examiner's admission) teaches the claimed thickness ratios.

The present invention is directed to a multilayer barrier film having at least three layers, namely a filled polypropylene layer and a plurality of unfilled layers, including at least one barrier layer and one sealing layer and optionally at least one adhesive layer. The filled layer contains 40-75 wt. % of an inorganic filler and forms one of the two surface layers of the film, and the film has a ratio of total thickness of unfilled layers to thickness of the filled layer of 1:8 to 1:1.2, which has been shown to be critical.

In contrast, Miyazaki teaches a thermoformed polyolefin cup laminate having essentially two layers, namely a filled layer (A) and a layer (B) which may be either filled or unfilled. The filled layer (A) is a polyolefin resin containing 19-69 wt. % talc and 1-10 wt. % titanium oxide, while the second layer (B) is a polyolefin resin containing 0-10 wt. % inorganic filler.

The Examiner contends that Miyazaki discloses the possibility of a third layer sandwiched between layers (A) and (B) (see column 8, lines 20-27). The Examiner argues that one of the possible materials (saponified ethylene/vinyl acetate) is synonymous with ethylene vinyl alcohol and therefore reads on the claimed barrier layer. However, it is noted that Miyazaki does not disclose this sandwiched layer as a barrier layer, but rather as a layer of adhesive resin, presumably to adhere layer (A) to layer (B).

Even assuming that the Examiner is correct that this layer of adhesive resin has barrier layer properties, which Applicants do not necessary concede, the Examiner has failed to demonstrate where Miyazaki teaches a sealing layer, as specifically required by the presently claimed multilayer barrier film. In fact, since Miyazaki is directed to a thermoformed cup, rather than a film for sealing packages, there is no apparent reason for a sealing layer in the laminate of

Miyazaki. Accordingly, for this reason alone, Miyazaki does not anticipate any of the claims of the present application.

The Examiner further contends that the thickness ratio of the filled layer to the unfilled layer in the thermoformable sheets is preferably 98:2 to 70:30 in order to assure that the laminate maintains the appearance of paper, citing to column 8, lines 5+. Presumably, it is the Examiner's position that this range of thickness ratio overlaps the range specified in the presently claimed invention. However, the Examiner's contentions in this regard are incorrect in several respects.

First, the thickness ratio pointed to by the Examiner at column 8, line 13 is for a two layer structure comprising only layer (A) as an inner layer and layer (B) as an outer layer. Miyazaki does not state what the thickness ratio must be for a laminate of 3 or more layers, as presently claimed.

Second, the very next sentence of Miyazaki (column 8, lines 14-17) states that if layer (B) is an outer layer not containing inorganic filler, it is necessary to decrease the foregoing thickness ratio in order to maintain a high quality impression. Miyazaki does not state to what degree the thickness ratio must be decreased. Moreover, according to the presently claimed invention, it is the filled layer which is the outer layer, which provides the multilayer barrier film with its paper-like qualities. The other outer layer of the presently claimed film is usually the sealing layer, in order to seal the barrier film to a package to be formed. Such a sealing layer is neither disclosed, suggested nor needed by Miyazaki.

The Examiner next argues that Miyazaki teaches that the thickness ratio is required to obtain a laminate with the touch and feel of paper, citing to column 6, lines 20+. However, nothing of the sort is taught or suggested by Miyazaki. Applicants can find nothing at column 6 which suggests that the superior characteristics listed there, including the touch and feel of paper, are the result of the thickness ratio of the laminate layers. In fact, column 8, lines 5-9 of Miyazaki explicitly states that the ratio of the thickness of layer (A) to layer (B) is not critical and can be determined appropriately according to the type and amount of each of the polyolefin resin and inorganic filler, and so forth.

Thus, a fair reading of Miyazaki is that the critical features of the Miyazaki invention are the two layer structure, the amounts of resin and fillers and the mixture of talc and titanium oxide

fillers in layer (A). None of these features is a special requirement or feature of the presently claimed invention.

Thus, while the presently claimed invention could include more than one inorganic filler, only one filler is required, and the nature of that filler (other than being inorganic) is not critical as claimed.

In view of the above Remarks, it is submitted that the Examiner has made a number of incorrect statements and unwarranted inferences from the Miyazaki reference, all on the basis of hindsight from the presently claimed invention. Thus, it is clear that Miyazaki does not anticipate any of the claims of the present application. Moreover, in view of the incorrect assertions and improper inferences, and further in view of the fact that Miyazaki is not related to the same type of packaging art as the presently claimed invention, Miyazaki does not form the proper basis for an obviousness rejection with any of the remaining prior art references of record. Accordingly, reconsideration and withdrawal of all of the rejections based on Miyazaki, either alone or in combination, are respectfully requested.

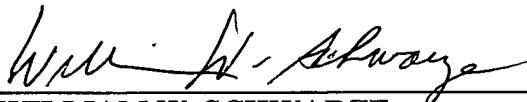
In view of the above Remarks, it is submitted that all of the claims in the application patentably distinguish over the prior art of record. Accordingly, reconsideration and withdrawal of the rejections and an early Notice of Allowance are respectfully solicited.

Respectfully submitted,

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(Date)

By:



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